CHAPTER XIII

RULES AND REGULATIONS

FOR THE

CONTROL OF ATMOSPHERIC POLLUTION

The Board of Health of the Town of Natick, acting under the authority of Section 31C of Chapter III of the General Laws of the Commonwealth of Massachusetts and every other act thereto enabling, hereby prescribes and establishes the following minimum Rules and Regulations relative to atmospheric pollution, which shall remain in force until further ordered and which may be amended or added to hereafter from time to time.

DEFINITIONS:

The following definitions cover the intended use of these words in the following Rules and Regulations:

- 1. **AEROSOL:** A disperse system in a gas. The system may be solid or liquid.
- 2. **AIR CONTAMINANT:** Includes, but is not limited to a dust, fume, gas, mist, odor, smoke, vapor, pollen, radioactive material, or any combination thereof.
- 3. **AIR CONTAMINATION:** The presence in the ambient air of one or more air contaminants which contribute or which are likely to contribute to air pollution.
- 4. **AIR CONTAMINATION SOURCE:** Any source at, from, or by reason of which there is emitted into the ambient air any air contaminant; and includes, but is not limited to all types of commercial and industrial plants and works, automobiles, trucks, tractors, buses and other motor vehicles (hereinafter called "motor vehicles"), vending and service stations and locations, indoor and outdoor incinerators of all types, open fires, and refuse dumps and piles.

- 5. **AIR POLLUTION:** The presence in the ambient air of one or more air contaminants in quantities, of characteristics, and of a duration which constitute a nuisance, are injurious to human, plant or animal life or to property or which unreasonably interfere with the comfortable enjoyment of life and property; excluding however all conditions subject to the requirements of the labor law.
- 6. **AMBIENT AIR:** All space outside of buildings, premises, stacks or exterior ducts.
- 7. **COLLECTION DEVICE:** (Control Equipment, Separating Device): Any article, machine, equipment, or other contrivance specifically designed or intended or represented as effective to eliminate, reduce, or control the emission of air contaminants.
- 8. **DRAFT:** Air flow induced or forced into a furnace or other fuel burning equipment by natural or artificial means.
- 9. **DUST:** A solid aerosol predominantly larger than colloidal formed, usually, from larger masses through the application of force.
- 10. **EMISSION:** Discharge into the ambient air of any air contaminant from any air contamination source.
- 11. **FLY ASH** (Soot, cinders): The aerosolized solid component of burned or partially burned solid or other fossil fuels.
- 12. **FUEL BURNING EQUIPMENT:** Any device, machine, mechanism, or structure used in the process of burning fuel or other combustible material.
- 13. **FUEL BURNING EQUIPMENT-HAND FIRED:** Any fuel burning equipment in which fresh fuel is manually thrown on the hot fuel bed.
- 14. **FUEL BURNING EQUIPMENT-STOKER FIRED:** Any fuel burning equipment in which fresh fuel is fed by means of a screw or other conveyor to the combustion chambers.

- 15. **FUMES:** Aerosols of very small size resulting from chemical reaction or from the condensation of vapors produced in combustion, distillation or sublimation. They are commonly metals or metal oxides and their composition may be different from the parent material.
- 16. **GAS:** One of the three states of aggregation of matter having neither independent shape nor volume but tending to expand indefinitely.
- 17. **INTERNAL COMBUSTION ENGINE:** An apparatus in which the calorific value of fuel is converted, by rapid oxidation, directly into mechanical energy.
- 18. **MIST:** An aerosol formed by the condensation of liquid vapor on nuclei such as submicron particles of dust or gaseous ions, or by the atomization of liquids.
- 19. **ODOR:** A property of certain gaseous, liquid or solid materials that elicits a physiologic response in the human olfactory system.
- 20. **OPEN FIRE:** Any fire wherein the products of combustion are emitted directly into the ambient air and are not directed thereto through a stack.
- 21. **PARTICULATE MATTER:** Liquid or solid material in finely divided form capable of being or having been aerosolized.
- 22. **PERSON:** An individual, partnership, association, syndicate, company, firm, trust, corporation, department, bureau, agency, political subdivision or any other entity recognized by law as the subject of rights and duties.
- 23. **POLLEN:** The fertilizing element of flowering plants.
- 24. **RADIOACTIVE MATERIAL:** Any material, be it solid, liquid, or gas, that spontaneously emits radiation (gamma rays, X-rays, alpha and beta particles, high-speed electrons, neutrons, and other nuclear particles.)
- 25. **SMOKE:** A solid aerosol consisting essentially of carbonaceous material, resulting from incomplete combustion, and in such concentration as to be observable independently of other solids.

- 26. **SOLID FUEL:** Any fuel that is not liquid or gaseous.
- 27. **SOOT BLOWING:** A device or process used to remove soot from boiler tubes or stacks.
- 28. **STACK:** A smokestack, chimney, flue, duct, or other conveyor for carriage of products of combustion or other air contaminants into the ambient air or for the creation of draft. Stack height shall be measured above ground level provided that no obstructions exist within one-quarter of its height. If such obstruction exists within one-quarter of its height, the height of the stack shall be measured from the nearest adjacent horizontal plane surface.
- 29. **STANDARD COMMERCIAL EQUIPMENT:** Equipment manufactured in quantity for purpose intended and completely specified as to size, type and rating in printed literature available locally to the Board of Health
- 30. **SULFUR CONTENT:** The amount of sulfur constituent in fuels as determined by standards of the American Society for Testing Materials.
- 31. **VAPORS:** The gaseous state of matter which exists in the solid or liquid state.
- 32. **VOLATILE MATTER:** The gaseous constituent of fuels as determined by the Standards of the American Society for Testing Materials.

SECTION 1. EMISSIONS PROHIBITED

Contamination of the ambient air by any person to the extent that it creates any condition of air pollution shall be unlawful. Emissions from any air contamination source in violation of subsequent sections of these rules and regulations shall be deemed to constitute evidence of such contamination.

SECTION 2. SPECIFIC EMISSIONS PROHIBITED

A. Dust and Fly Ash in Combustion Gases, Air and Other Gases.

No person shall cause, suffer or allow to be discharged from any fuel-burning equipment or premises into the ambient air or to pass any convenient measuring point in the stack, dust in the gases to exceed 0.85 pounds per 1000 pounds of gases, adjusted to 12% carbon dioxide (CO₂) content, except that in no case shall more than 15% of the total measured before entering the collection device be emitted from the stack. The amount of solids in the gases shall be determined according to the Test Code for Dust-Separating Apparatus of the American Society of Mechanical Engineers, revised and amended to date, which is hereby made a part of these regulations by reference. Evaluation shall be made by a qualified expert employed by or acceptable to the Board of Health.

The use of dilution by admitting outside air at the base of a stack as a means of controlling emissions shall be prohibited.

B. Smoke:

The emission of visible smoke from any air contamination source burning gas or oil as fuel, and the emission from other air contamination sources, except for a period or periods aggregating 6 minutes in one hour, of smoke the shade, density or appearance of which is equal to or greater than No. 2 of the Ringelmann Chart as published by the U.S. Bureau of Mines, which is hereby made part of these regulations by reference is prohibited, provided that smoke the shade, density or appearance of which is equal to but not greater than No. 3 of the Chart may be emitted for a period or periods aggregating three minutes in any 15 minutes when building a new fire, or when breakdown of equipment occurs such as to make it evident that the emission was not reasonably preventable. Soot blowing of boilers or flues shall be considered as a comparable process for which emissions shall be controlled as above, unless otherwise permitted by the Board of Health.

The Mine Safety Appliance Smokescope or its equivalent containing a reference film disk equivalent to No.2 and No.3 of the Ringelmann Chart is hereby adopted as the standard measurement for comparison of the shade, appearance or density of smoke. The Ringelmann Chart as specified in U.S. Bureau of Mines Information Circular 7718, August 1955, may also be employed as a reference standard.

C. Sulphur Compounds

No person shall cause, suffer or allow to be discharged into the ambient air in any state or combination thereof sulfur compounds, calculated as sulfur dioxide (SO₂), exceeding 0.4% by volume in concentration at the point of discharge.

SECTION 3. CERTAIN FUELS PROHIBITED

No person shall use or consume any solid fuel for hand-firing of surface burning types of equipment, the volatile matter content of which is 23% or more calculated on a moisture free basis.

SECTION 4. HEIGHT OF STACKS

The top of any stack shall extend sufficiently above the roof of the building or premises of which it is part, and shall extend above or be far enough from any nearby building or premises to prevent the creation of and air pollution nuisance to adjoining property.

SECTION 5. SAMPLING HOLES

Any person using any equipment or installation which is emitting into the ambient air any air contaminant, shall provide reasonably located sampling holes and closures for same at such point in any stack or enclosure as may be necessary to properly determine the extent to which the air contaminant is being emitted into the ambient air.

SECTION 6. INSTALLATION PERMIT

No person shall construct, reconstruct, install, or alter any fuel burning equipment, incinerator, or any other equipment capable of emitting into the ambient air any air contaminant until an application for installation permit, properly listing and identifying the equipment and stating the means provided or to be provided to assure compliance with these Rules and Regulations has been filed by the person, or his authorized agent, in the office of the Board of Health and an installation permit issued by the Board of Health. No person shall construct, install or alter any such equipment in such manner that it does not conform to such application permit.

The following equipment, repairs, and systems are excluded from the foregoing provisions of this section:

- (A.) Oil-fired space heating equipment using Nos. 1 and 2 fuel oil when standard commercial equipment is used.
- (B.) Gas-fired space heating equipment when standard commercial equipment is used.
- (C.) Solid fuel-fired space heating equipment when standard commercial equipment is used and the maximum fuel input will not exceed 350,000 BTU per hour.
- (D.) Equipment which is not permanently installed in a stationary building or structure.
- (E.) Normal operating repairs or normal operating alterations to previously approved equipment or to equipment installed prior to the effective date of these Rules and Regulations.
- (F.) Household Incinerators.

The prohibition of emissions shall apply to all air contamination sources, whether installed by permit, installed without permit as one of the exceptions listed above, or installed prior to the effective date of these Rules and Regulations.

SECTION 7. ACCESS TO PRIVATE PROPERTY

No person shall in any manner hinder, obstruct, delay, resist, prevent or in any way interfere with the Board of health or its agents, or refuse to permit such persons to perform their duty by refusing them, or any of them, entrance to property or premises containing equipment or open fires emitting or suspected of emitting into the ambient air any air contaminants.

SECTION 8. JOINT LIABILITY

All persons owning, operating or in charge of or in control of any equipment or property who shall cause or permit any violation of these Rules and Regulations either as proprietors, contractors, owners, lessees, tenants, managers, superintendents, engineers, or otherwise shall be individually and collectively liable for any penalties imposed by these Rules and Regulations.

SECTION 9. SEPARABILITY

So far as the Board of Health may provide each section of these Rules and Regulations shall be construed as separate to the end that if any section, sentence, clause or phrase shall be held invalid for any reason, the remainder of the Rules and Regulations shall continue in full force.

BOARD OF HEALTH Natick, Mass.

Stuart C. Peterson Joseph P. Foley John S. Wheeler, M.D.

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SECTION 10 PENALTY

- (a) Criminal Complaint Whoever violates any provision of these rules and regulations may be penalized by indictment or on complaint brought in the District Court. Except as may otherwise be provided by law, and as the District Court may see fit to impose, the maximum penalty for any violation of these provisions shall be \$300.00 for each offense.
- (b) Non-Criminal Disposition Whoever violates any provision of these rules and regulations may, in the discretion of the Health Agent, be penalized by a non-criminal complaint in the District Court pursuant to the provisions of the Massachusetts General Laws, Chapter 40, Section 21D. For the purpose of this provision the penalty to apply in the event of a violation shall be as follows: \$50.00 for the first offense; \$100.00 for the second offense; \$200.00 for the third offense; and \$300.00 for the fourth and each subsequent offense. Each day on which a violation exists shall be deemed to be a separate offense.

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BOARD OF HEALTH Natick, Mass.

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